

## **United States Department of the Interior**



## FISH AND WILDLIFE SERVICE Red Bluff Fish & Wildlife Office 10950 Tyler Road, Red Bluff, California 96080 (530) 527-3043, FAX (530) 529-0292

January 17, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (January 1, 2012 - January 14, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period January 1, 2012 through January 14, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

Date	Discharge volume (cfs) <sup>1</sup>	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
				BY11 Winter	BY11 Spring	BY11 Fall	BY11 Late-Fall	BY12 RBT
1/1/2012	6,380	9.6	_	_	_	_	_	_
1/2/2012	6,350	9.4	_	_	_	_	_	_
1/3/2012	6,290	9.6	_	_	_	_	_	_
1/4/2012	6,290	9.7	2.0	219 (60 – 83)	28 (42)	7,675 (29 – 40)	0 ( - )	0(-)
1/5/2012	6,330	9.9	2.0	985 (66 – 110)	0(-)	13,461 (32 – 39)	0 ( - )	0 ( - )
1/6/2012	6,310	9.7	2.3	757 (60 – 109)	0(-)	10,461 (33 – 40)	181 (144 – 169)	0(-)
1/7/2012	6,310	9.4	1.9	398 (67 – 79)	0 ( - )	15,898 (30 – 40)	236 (168 – 173)	0 ( - )
1/8/2012	6,350	9.5	2.7	116 (69 – 76)	0 ( - )	11,213 (31 – 40)	0 ( - )	0 ( - )
1/9/2012	6,310	9.3	2.5	271 (74 – 84)	136 (47 – 49)	14,343 (29 – 40)	0 ( - )	0 ( - )
1/10/2012	6,280	9.0	1.9	180 (68 – 77)	0(-)	17,886 (29 – 43)	0 ( - )	0(-)
1/11/2012	6,210	9.0	2.0	171 (61 – 79)	0 ( - )	10,868 (29 – 43)	0 ( - )	0 ( - )
1/12/2012	6,140	9.2	2.2	204 (60 – 107)	32 (56)	32,450 (30 – 44)	32 (137)	33 (99)
1/13/2012	5,930	8.9	2.0	135 (72 – 113)	0 ( - )	31,340 (28 – 41)	0 ( - )	0 ( - )
1/14/2012	5,810	8.8	2.2	501 (62 – 120)	0 ( - )	29,271 (29 – 42)	0 ( - )	0 ( - )
Biweekly Total <sup>2</sup>				5,707	217	230,488	761	33
Biweekly Lower 90% Confidence Interval				-9,929	-1,205	-17,536	-4,150	-30
Biweekly Upper 90% Confidence Interval				21,343	1,639	478,512	5,672	96
Brood Year Total				860,869	93,759	327,503	97,174	33
Brood year Lower 90% Confidence Interval				611,409	68,396	210,839	20,030	-30
Brood year Upper 90% Confidence Interval				1,110,329	119,122	444,167	174,317	96

<sup>&</sup>lt;sup>1</sup> Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (<a href="http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd">http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd</a>).

<sup>&</sup>lt;sup>2</sup> Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

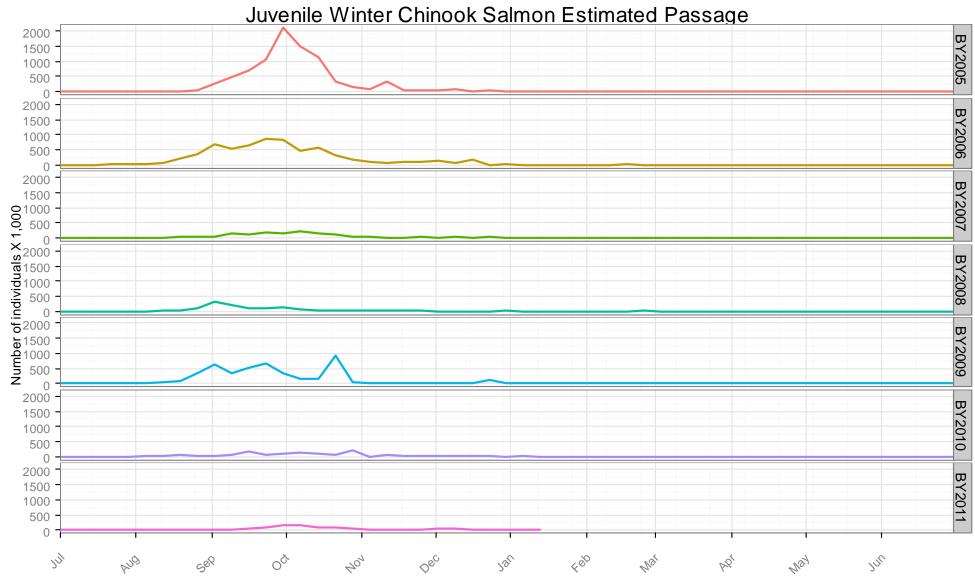


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2005 to present.

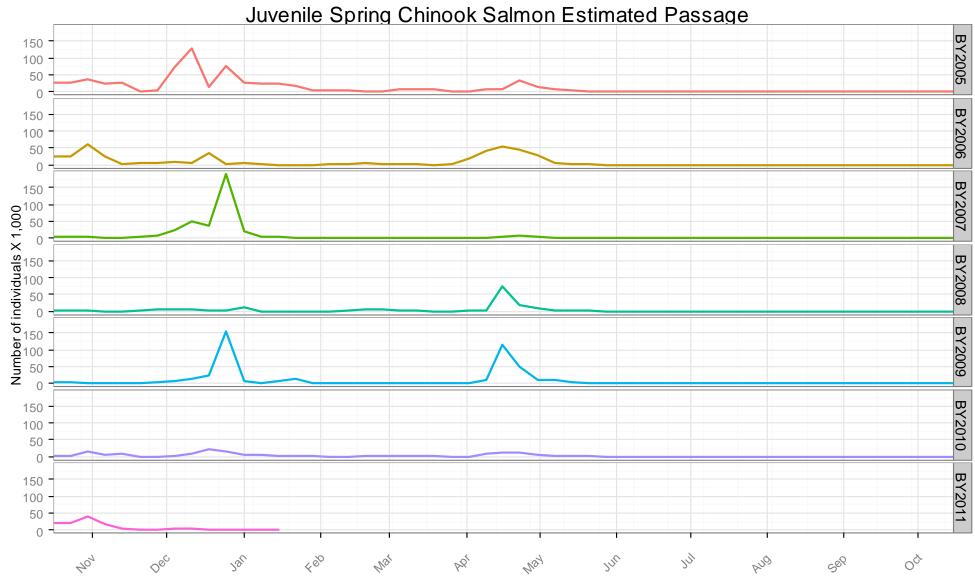


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present.

Juvenile Onchorhyncus mykiss Estimated Passage 25 20 BY2006 15 10 5 0 25 20 15 BY2007 10 5 BY2008 BY2009 BY2010 25 20 BY2011 15 10 5 0 25 20 15 BY2012 10 5 0 400 RUD Nay 7171 78/

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

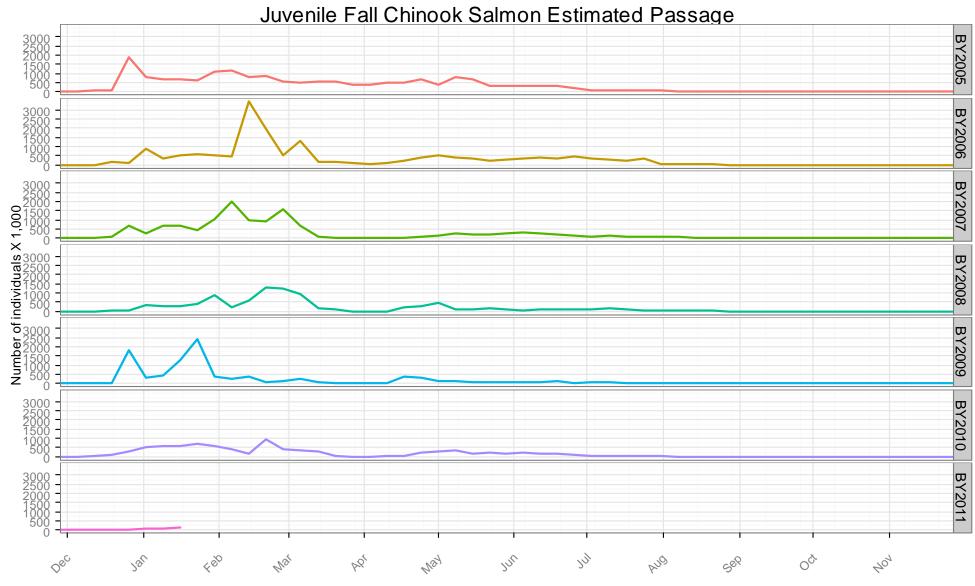


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present.

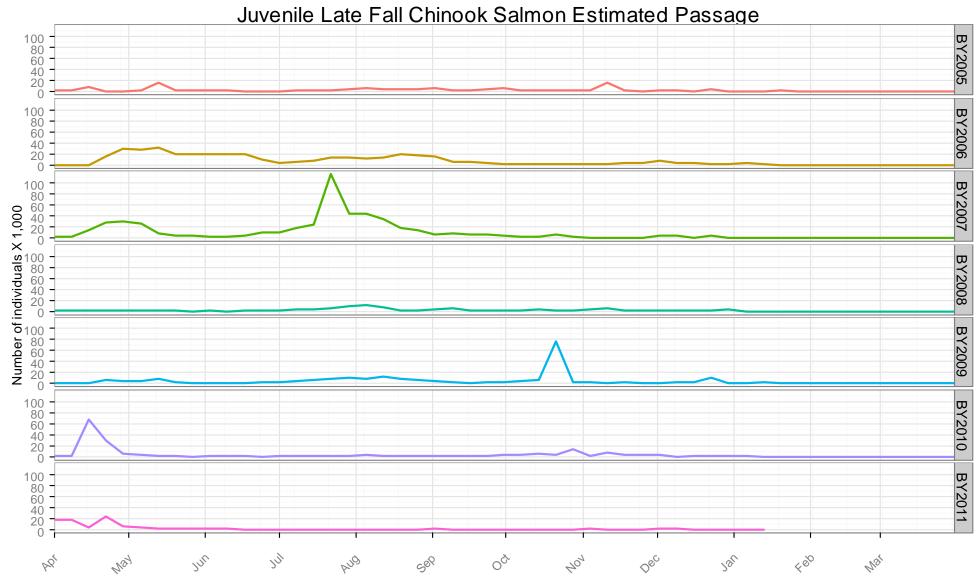


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2005 to present.

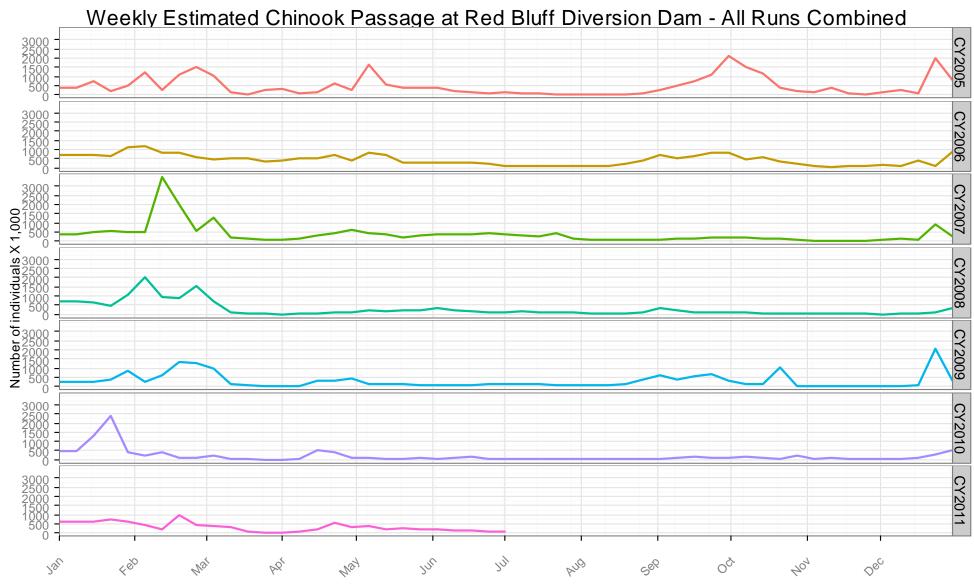


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to June 30 2011